

WHAT IS CLAIMED IS:

1. A financial simulation computer program product for creating a project preparation, negotiating, and testing environment using standard project finance tools, comprising:
 - a computer usable medium having computer-readable program code embodied in a medium for generating financial statements, financial data, charts, graphs and reports using the standard project finance tools, the product having
 - means for providing limited recourse including debt service reserve accounts, stand-by loans and risk-sharing with suppliers and off-takers;
 - means for allowing automatically generated or manual entry of and editing of capital expenditure time series for multiple contracts in multiple capital expenditure categories;
 - means for selecting a desired financing time horizon for each loan;
 - means for setting for each loan a percentage of a capital expenditure time series to be financed;
 - means for automatically generating a loan disbursement time series; and
 - means for generating a loan disbursement times series independent of changes in capital expenditures and exchange rates based upon an earlier automatically generated loan disbursement time series, and
 - means for automatically generating variable interest rate time series to allow for simulating interest rate shock or cyclical patterns, automatically adding or subtracting basis points across the board from each element of the time series and manually editing the time series to give access to the variable interest rate.

2. The computer program product as claimed in Claim 1, wherein the program code generates a graphical user interface at a workstation.

3. The computer program product as claimed in Claim 1, wherein said access means include the creation of a link between a loan, a stand-by loan, a deferral credit for input payments, deferral credits for off-taker fees, and the variable interest rate and at the same time ensuring that the loan interest rate or deferral credit interest rate is changed according to changes in the variable interest rate with such changes taking place at appropriate rollover dates.

4. A financial simulation computer program product for creating a project preparation, negotiating, and testing environment using standard project finance tools, comprising:

a computer usable medium having computer-readable program code embodied in a medium for generating financial statements, financial data, charts, graphs and reports using the standard project finance tools, the product having

means for providing limited recourse including debt service reserve accounts, stand-by loans and risk-sharing with suppliers and off-takers;

means for allowing automatically generated or manual entry of and editing of capital expenditure time series for multiple contracts in multiple capital expenditure categories;

means for selecting a desired financing time horizon for each loan;

means for setting for each loan a percentage of a capital expenditure time series to be financed;

means for automatically generating a loan disbursement time series; and

means for generating a loan disbursement times series independent of changes in capital expenditures and exchange rates based upon an earlier automatically generated loan disbursement time series, and

means for allowing a user, with regard to a loan, stand-by loan, deferral credit for input payments and deferral credit for off-taker fees, to select a fixed interest rate and a variable

interest rate and, with respect to a loan, to select a manual interest rate such that the user, in case of a variable interest rate selection, is allowed to input basis points to add or subtract from the variable interest rate, and thereby to establish a link between the loan and the variable interest rate time series and, in case of manual interest rate selection, to gain access to entry fields manually to set interest rate at appropriate rollover dates.

5. A financial simulation computer program product for creating a project preparation, negotiating, and testing environment using standard project finance tools, comprising:

a computer usable medium having computer-readable program code embodied in a medium for generating financial statements, financial data, charts, graphs and reports using the standard project finance tools, the product having

means for providing limited recourse including debt service reserve accounts, stand-by loans and risk-sharing with suppliers and off-takers;

means for allowing automatically generated or manual entry of and editing of capital expenditure time series for multiple contracts in multiple capital expenditure categories;

means for selecting a desired financing time horizon for each loan;

means for setting for each loan a percentage of a capital expenditure time series to be financed;

means for automatically generating a loan disbursement time series; and

means for generating a loan disbursement times series independent of changes in capital expenditures and exchange rates based upon an earlier automatically generated loan disbursement time series, and

means for allowing inputting of input-output coefficients for requirement of intermediate products and automatically generating time series for amount of intermediate product

to be used as input for next stage with remainder being sold outside, and manually editing said time series, and at the same time permitting a user to generate an output time series for each production stage for end product with output time series in case of multi stage production process outlining a potential production frontier.

6. A financial simulation computer program product for creating a project preparation, negotiating, and testing environment using standard project finance tools, comprising:

a computer usable medium having computer-readable program code embodied in a medium for generating financial statements, financial data, charts, graphs and reports using the standard project finance tools, the product having

means for providing limited recourse including debt service reserve accounts, stand-by loans and risk-sharing with suppliers and off-takers;

means for allowing automatically generated or manual entry of and editing of capital expenditure time series for multiple contracts in multiple capital expenditure categories;

means for selecting a desired financing time horizon for each loan;

means for setting for each loan a percentage of a capital expenditure time series to be financed;

means for automatically generating a loan disbursement time series; and

means for generating a loan disbursement times series independent of changes in capital expenditures and exchange rates based upon an earlier automatically generated loan disbursement time series, and

means for using and displaying graphically intermediate product as input in a next production stage and preventing, if so desired, any shortfall of intermediate product and

consequently shortfall of output of next production stage through outside procurement of intermediate product, allowing a production frontier to be reached.

7. A financial simulation computer program product for creating a project preparation, negotiating, and testing environment using standard project finance tools, comprising:

a computer usable medium having computer-readable program code embodied in a medium for generating financial statements, financial data, charts, graphs and reports using the standard project finance tools, the product having

means for providing limited recourse including debt service reserve accounts, stand-by loans and risk-sharing with suppliers and off-takers;

means for allowing automatically generated or manual entry of and editing of capital expenditure time series for multiple contracts in multiple capital expenditure categories;

means for selecting a desired financing time horizon for each loan;

means for setting for each loan a percentage of a capital expenditure time series to be financed;

means for automatically generating a loan disbursement time series; and

means for generating a loan disbursement times series independent of changes in capital expenditures and exchange rates based upon an earlier automatically generated loan disbursement time series, and

means for selling output or portions thereof of at least one of intermediate or end product.

8. A financial simulation computer program product for creating a project preparation, negotiating, and testing environment using standard project finance tools, comprising:

a computer usable medium having computer-readable program code embodied in a medium for generating financial statements, financial data, charts, graphs and reports using the standard project finance tools, the product having

means for providing limited recourse including debt service reserve accounts, stand-by loans and risk-sharing with suppliers and off-takers;

means for allowing automatically generated or manual entry of and editing of capital expenditure time series for multiple contracts in multiple capital expenditure categories;

means for selecting a desired financing time horizon for each loan;

means for setting for each loan a percentage of a capital expenditure time series to be financed;

means for automatically generating a loan disbursement time series; and

means for generating a loan disbursement times series independent of changes in capital expenditures and exchange rates based upon an earlier automatically generated loan disbursement time series, and

means for jointly producing a main product and additional products in a production stage and selling output or portions thereof with respect to at least one of a jointly produced product and a main product.

9. The computer program product as claimed in Claim 8, further including means for allowing the user to input a number of units of additional products being produced per unit of main product and a percentage of production cost being allocated to each joint product while automatically ensuring that production costs not allocated to joint products are allocated to the main product.

10. The computer program product as claimed in Claim 5, wherein means is provided for automatically building inventory for intermediate and end products.

11. The computer program product as claimed in Claim 10, wherein said inventory building means includes the step of, upon entry of the number of units held as minimum stock and delivery time, buying minimum stock on time for delivery at start-up to begin production.

12. The computer program product as claimed in Claim 11, wherein said inventory building means values stock with a LIFO-method.

13. The computer program product as claimed in Claim 1, wherein means is provided for allowing cash flow risks to be shared with a supplier for both intermediate and end products.

14. The computer program product as claimed in Claim 13, wherein said cash flow risks sharing means includes, upon selection of a sales contract and inputting of a percentage to be applied to a sales price of the selected sales contract to obtain input price, establishing a link between the sales contract and the input price and entering the name of the selected sales contract into a variable input record to allow the input price in numéraire units to vary subject to a minimum price time series with the sales price time series and an associated exchange rate time series.

15. The computer program product as claimed in Claim 1, wherein means is provided to allow inputting of input-output coefficients and to select a time needed to produce one output unit per product for both intermediate and end products.

16. The computer program product as claimed in Claim 15, wherein said time selection means includes accounting for the number of units produced, prices work-in-process at factor costs, and accounting for changes in input costs.

17. The computer program product as claimed in Claim 16, wherein the work-in-process is priced at historical cost at time of procurement of input factors plus share of fixed operating costs during production time.

18. The computer program product as claimed in Claim 1, wherein means is provided for creating a cash flow, an income statement and a balance sheet which will account for output variations including maintenance shutdowns for both intermediate and end products.

19. The computer program product as claimed in Claim 18, wherein said balance sheet creating means includes means for creating a finished goods balance sheet position based upon an average number of inventory cycle days, whereby a value of finished goods is generatable at any time during a project lifetime.

20. The computer program product as claimed in Claim 1, wherein means is provided for allowing sale of output or portions thereof directly to an end user, through intermediaries (off-takers) or on a cost-plus basis taking sales expenses into account for intermediate and end products as well as for joint products.

21. The computer program product as claimed in Claim 1, wherein means is provided to check dynamic impact of changes in key variables on limited recourse reserve availability, said

dynamic impact checking means allows, with regard to a selected product, access to at least one of deferment credits variable costs, unused variable cost recourse, deferment credits off-take contracts, unused off-take credit recourse and total unused product recourse.

22. The computer program product as claimed in Claim 1, wherein said entry allowance means includes inputting multiple variables per product for both intermediate and end products.

23. The computer program product as claimed in Claim 1, wherein means is provided for user inputting down payment for variable input factor payments and time between creation of payment obligation and actual payment for both intermediate and end products.

24. The computer program product as claimed in Claim 23, wherein said user input means allow calculation of variable input factor related cash payments, impact on cash account and accounts payable.

25. The computer program product as claimed in Claim 14, wherein means is provided for deferral credit of input payments subject to a trigger price and a maximum loan deferral amount not yet used, and paying interest on utilization of a deferral credit, and deferring interest payment if cash flow is unavailable.

26. The computer program product as claimed in Claim 1, wherein the output time series is automatically generated using percentage of capacity used and including automatic creation of linear, steep and flat learning curves and allowing for manually editing time series of

percentage of capacity used including the creation of maintenance shutdowns for both intermediate and end products.

27. The computer program product as claimed in Claim 7, wherein means is provided for allowing sale of output or portions thereof directly to an end user, through intermediaries (off-takes) or on a cost-plus basis taking sales expenses into account for intermediate and end products.

28. The computer program product as claimed in Claim 27, wherein said cost-plus sale allowing means includes providing a list of cost basis comprising cost of goods sold, cost of goods sold plus share in overheads and cost of goods sold plus share in overheads plus share in depreciation.

29. The computer program product as claimed in Claim 28, wherein said sale allowing means further includes the step, upon selection of a mark-up basis, of establishing a link between a mark-up sales price and a selected cost basis, whereby any changes in the selected cost basis are automatically associated with the mark-up price.

30. The computer program product as claimed in Claim 7, wherein means is provided to check dynamic impact of changes in key variables on limited recourse reserve availability, said dynamic impact checking means allows, with regard to a selected product, access to at least one of deferment credits variable costs, unused variable cost recourse, deferment credits off-take contracts, unused off-take credit recourse and total unused product recourse.

31. The computer program product as claimed in Claim 7, wherein said entry allowance means includes inputting multiple variables per product for both intermediate and end products.

32. The computer program product as claimed in Claim 7, wherein said entry allowance means includes means for inputting different types of sales contracts per product for both intermediate and end products.

33. The computer program product as claimed in Claim 20, wherein said direct sale or sale through intermediaries allows automatic generation of the sales price time series including cyclical patterns and trends and allows the manual editing of the sales price time series for both intermediate and end products.

34. The computer program product as claimed in Claim 33, wherein means is provided for cash flow risk sharing with intermediaries (off-takers) through deferral credits for off-takers' fees subject to a trigger price, a maximum deferral credit amount not yet reached and paying interest on utilization of a deferral credit, and deferring interest payment if cash flow is unavailable.

35. The computer program product as claimed in Claim 20, wherein means is provided for allowing user input of time between creation of sales payment obligation and receipt of payment for intermediate and end products as well as main and joint products.

36. The computer program product as claimed in Claim 35, wherein said time between creation of payment obligation and receipt of payment includes calculation of balance sheet position receivables.

37. The computer program product as claimed in Claim 7, wherein means is provided for searching, upon a user initialized deletion of a direct sale or off-take contract, all individual records of variable input factors using a percentage of sales price for input factor pricing and, finding the direct sale or off-take contract's name in one record, prevents the deletion of the direct sale or off-take contract for both intermediate and end products.

38. The computer program product as claimed in Claim 8, wherein means is provided for allowing sale of output or portions thereof directly to an end user, through intermediaries (off-takers) or on a cost-plus basis taking sales expenses into account for both jointly produced and main products.

39. The computer program product as claimed in Claim 38, wherein said cost-plus sale allowing means includes providing a list of cost bases comprising a share of total operating costs, a share of variable costs, a share of fixed operating costs, a share of variable plus fixed operating costs, and a share of total operating costs plus depreciation.

40. The computer program product as claimed in Claim 39, wherein said sale allowing means further includes the step, upon selection of a mark-up basis, of establishing a link between a mark-up sales price and a selected cost basis, whereby any changes in the selected cost basis are automatically associated with the mark-up price.

41. The computer program product as claimed in Claim 8, wherein means is provided to check dynamic impact of changes in key variables on limited recourse reserve availability for both jointly produced and main products, said dynamic impact checking means allows, with regard to a selected product, access with respect to main products to at least one of deferment credits variable costs and unused variable cost recourse, and with respect to main and joint products access to at least one of deferment credits off-take contracts, unused off-take credit recourse and total unused product recourse.

42. The computer program product as claimed in Claim 8, wherein said entry allowance means includes inputting variables for jointly produced and main products.

43. The computer program product as claimed in Claim 8, wherein said entry allowance means includes means for inputting different types of sales contracts per product for jointly produced and main products.

44. The computer program product as claimed in Claim 41, wherein said direct sale or sale through intermediaries allows automatic generation of the sales price time series including cyclical patterns and trends and allows the manual editing of the sales price time series for both jointly produced and main products.

45. The computer program product as claimed in Claim 44, wherein means is provided for cash flow risk sharing with intermediaries (off-takers) through deferral credits for off-takers' fees subject to a trigger price, a maximum deferral credit amount not yet reached and paying

interest on utilization of a deferral credit, and deferring interest payment if cash flow is unavailable.

46. The computer program product as claimed in Claim 42, wherein means is provided for allowing user input of time between creation of sales payment obligation and receipt of payment for both jointly produced and main products.

47. The computer program product as claimed in Claim 8, wherein means is provided for searching, upon a user initialized deletion of a direct sale or off-take contract, all individual records of variable input factors using a percentage of sales price for input factor pricing and, finding the direct sale or off-take contract's name in one record, prevents the deletion of the direct sale or off-take contract for both jointly produced and main products.

48. Method for implementing a machine-readable financial simulation computer program, comprising:

installing the program which is contained as computer readable code on a computer usable medium in a computer;

permitting entry of data representative of multiple contracts and multiple capital expenditure categories;

selecting a desired loan financing time horizon;

setting a percentage of a capital expenditure time series to be financed;

generating a loan disbursement time series and disbursement schedule independent of changes in capital expenditures and in exchange rates; and

automatically generating and manually editing variable interest rate time series to permit automatic across-the-board changes and a simulation of cyclical patterns and shocks.

49. Method for implementing a machine-readable financial simulation computer program, comprising:

installing the program which is contained as computer readable code on a computer usable medium in a computer;

permitting entry of data representative of multiple contracts and multiple capital expenditure categories;

selecting a desired loan financing time horizon;

setting a percentage of a capital expenditure time series to be financed;

generating a loan disbursement time series and disbursement schedule independent of changes in capital expenditures and in exchange rates; and

selecting one of fixed, variable and manual interest rate while, in case of variable interest rate, creating a link between loan and variable interest rate and ensuring change of a loan interest rate at an appropriate rollover date with basis points added or subtracted as user inputs and, in case of manual interest rate selection, gaining access to entry fields to set manually interest rate at appropriate rollover dates not allowing changes between such dates.

50. Method for implementing a machine-readable financial simulation computer program, comprising:

installing the program which is contained as computer readable code on a computer usable medium in a computer;

permitting entry of data representative of multiple contracts and multiple capital expenditure categories;

selecting a desired loan financing time horizon;
setting a percentage of a capital expenditure time series to be financed;
generating a loan disbursement time series and disbursement schedule independent of changes in capital expenditures and in exchange rates; and
inputting input-output coefficients for requirements of intermediate products and automatically generating time series for amount of intermediate product to be used as input for next stage with remainder being sold outside and manually editing said time series and at the same time user being permitted generating output time series for each production stage selectively for end product or for intermediate products.

51. The method as claimed in Claim 50, further comprising automatically building inventories for end and intermediate products.

52. The method as claimed in Claim 50, further comprising allowing cash flow risks to be shared with a supplier for end and intermediate products.

53. The method as claimed in Claim 50, further comprising allowing selection of a time needed to produce one output unit for end and intermediate products.

54. The method as claimed in Claim 50, further comprising creating a cash flow income statement and a balance sheet which accounts for output variations including maintenance shutdowns for end and intermediate products.

55. The method as claimed in Claim 50, further comprising allowing sale of output or portions thereof on a cost-plus basis for end and intermediate products.

56. The method as claimed in Claim 52, further comprising checking dynamic impact of changes in key variables on limited recourse reserve availability for multistage production processes using intermediate products to produce an end product.

57. The method as claimed in Claim 50, further comprising inputting multiple variables per product for end and intermediate products.

58. The method as claimed in Claim 50, further comprising inputting different types of sales contracts per product for end and intermediate products.

59. The method as claimed in Claim 50, further comprising break-even testing a sales contract for end and intermediate products.

60. Method for implementing a machine-readable financial simulation computer program, comprising:

installing the program which is contained as computer readable code on a computer usable medium in a computer;

permitting entry of data representative of multiple contracts and multiple capital expenditure categories;

selecting a desired loan financing time horizon;

setting a percentage of a capital expenditure time series to be financed;

generating a loan disbursement time series and disbursement schedule independent of changes in capital expenditures and in exchange rates; and

inputting units of joint products produced per unit of main product and production cost allocated to joint products and automatically allocating remainder of production costs to main product which permitting to use to generate output time series for each main or joint product.

61. The method as claimed in Claim 60, further comprising automatically building inventories for main and joint products.

62. The method as claimed in Claim 60, further comprising allowing cash flow risks to be shared with a supplier for main and joint products.

63. The method as claimed in Claim 60, further comprising allowing selection of a time needed to produce one output unit of main product, the number of joint units produced per unit of main product being the number of joint units produced during the selected time to produce the one output unit.

64. The method as claimed in Claim 60, further comprising creating a cash flow income statement and a balance sheet which accounts for output variations including maintenance shutdowns for main and joint products.

65. The method as claimed in Claim 60, further comprising allowing sale of output or portions thereof on a cost-plus basis for main and joint products.

66. The method as claimed in Claim 60, further comprising checking dynamic impact of changes in key variables on limited recourse reserve availability for main and joint products in connection with production of joint and main products.

67. The method as claimed in Claim 60, further comprising inputting multiple variables per product for main and joint products.

68. The method as claimed in Claim 60, further comprising inputting different types of sales contracts per product for main and joint products.

69. The method as claimed in Claim 60, further comprising break-even testing a sales contract for main and joint products.